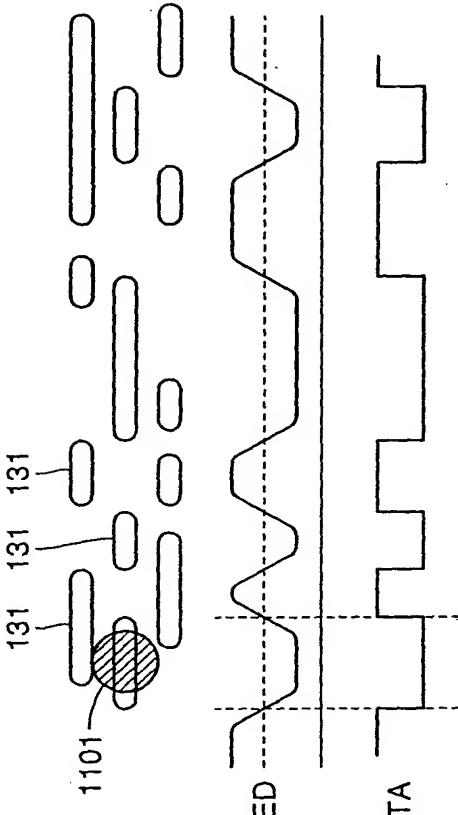


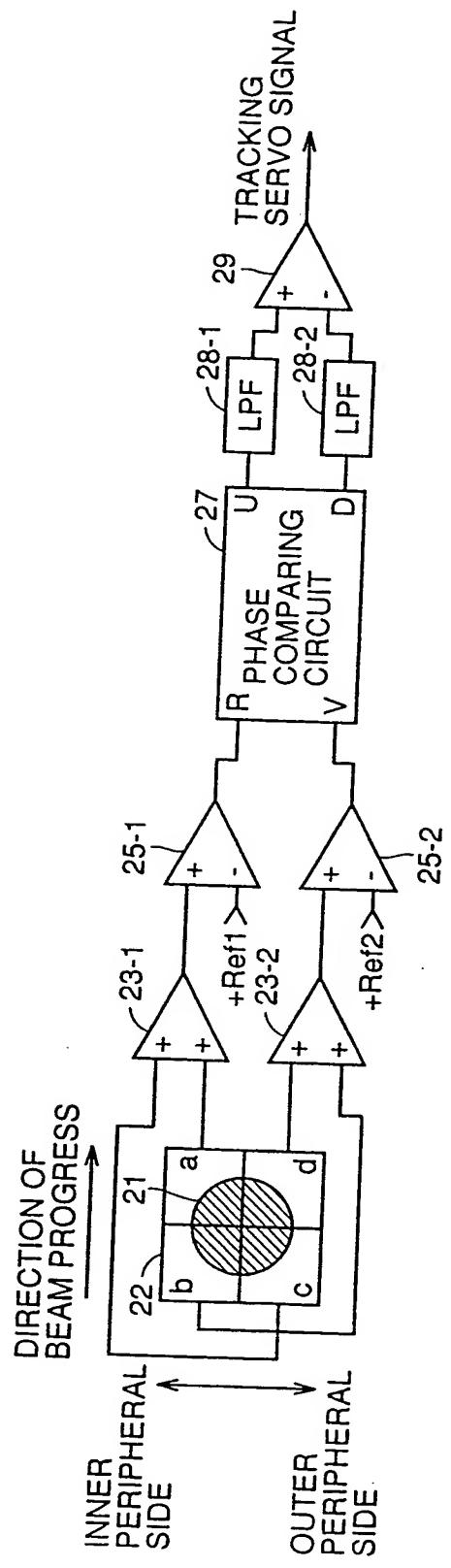
*FIG. 1A* PRIOR ART



*FIG. 1B* PRIOR ART  
QUANTITY OF REFLECTED  
LIGHT BEAM

*FIG. 1C* PRIOR ART  
REPRODUCED DATA

FIG.2 PRIOR ART



*FIG.3* PRIOR ART

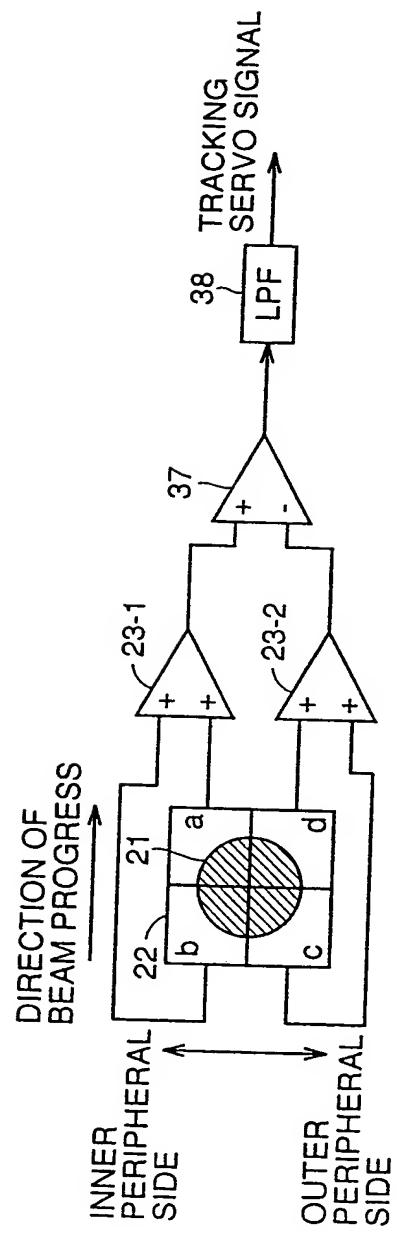
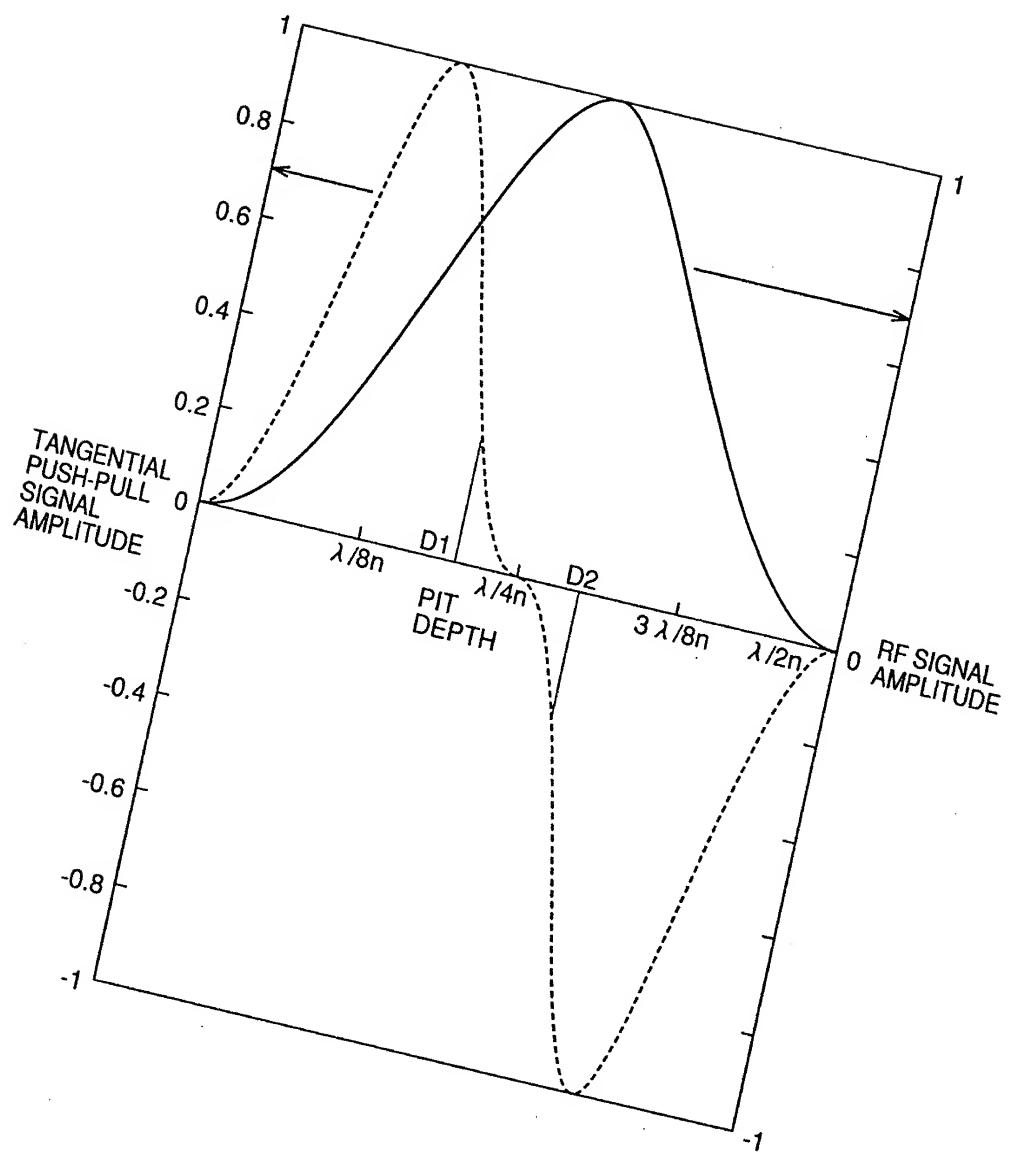
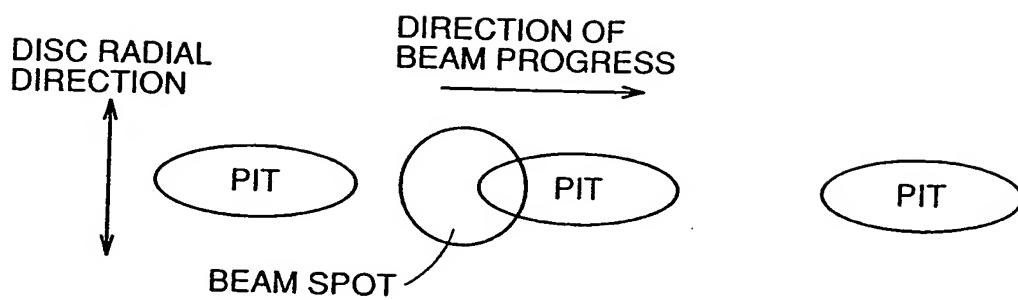


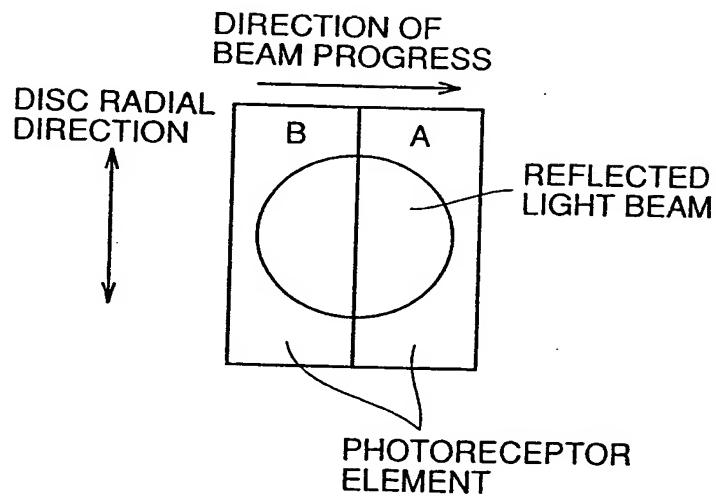
FIG.4



*FIG.5A*



*FIG.5B*



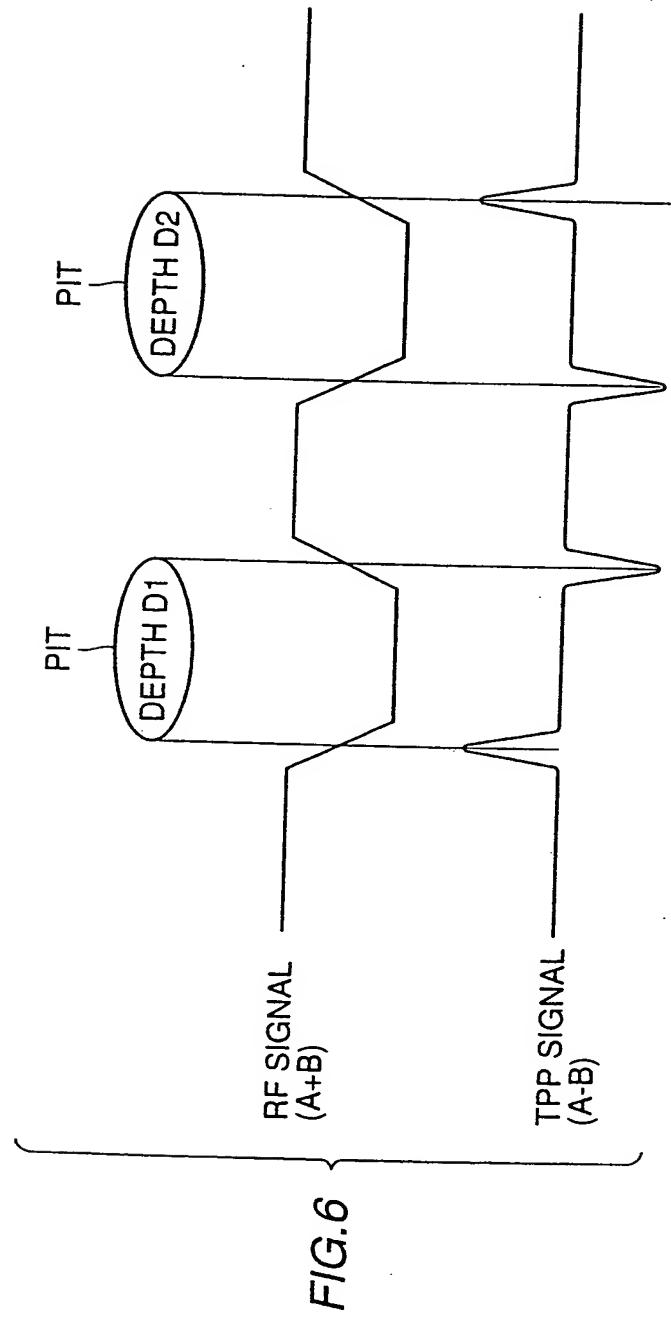
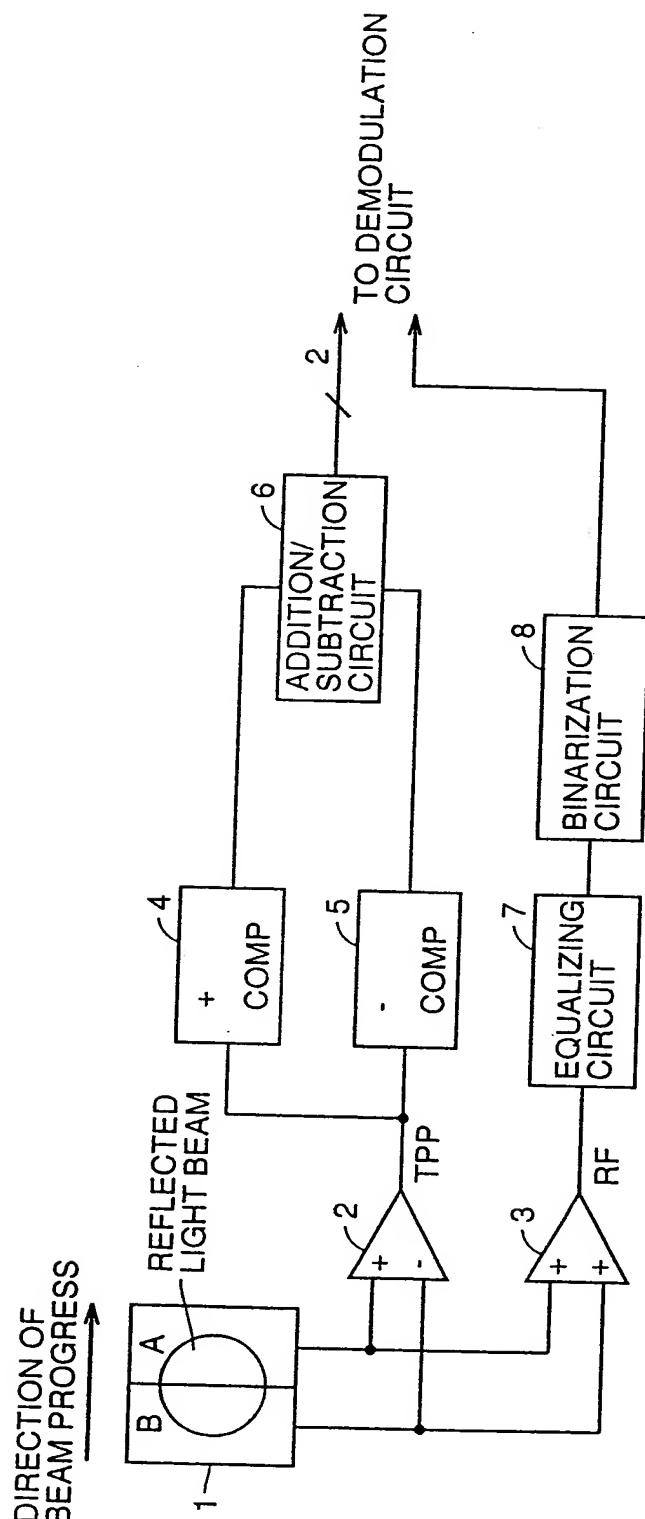
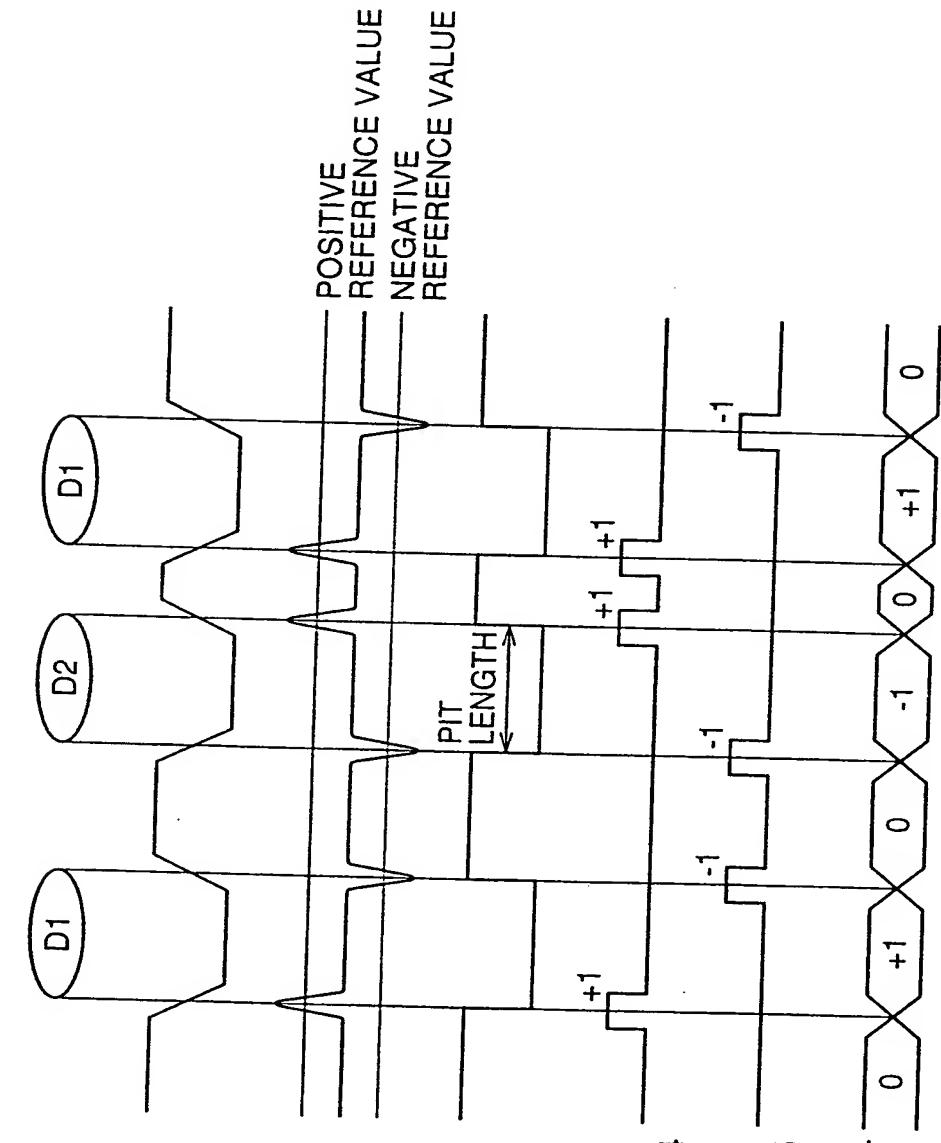


FIG.7



*F/G.8A*

*F/G.8B* RF SIGNAL



*F/G.8C*

TPP SIGNAL  
BINARIZATION  
SIGNAL

*F/G.8D*

OUTPUT  
SIGNAL FROM  
COMPARATOR 4  
OUTPUT  
SIGNAL FROM  
COMPARATOR 5

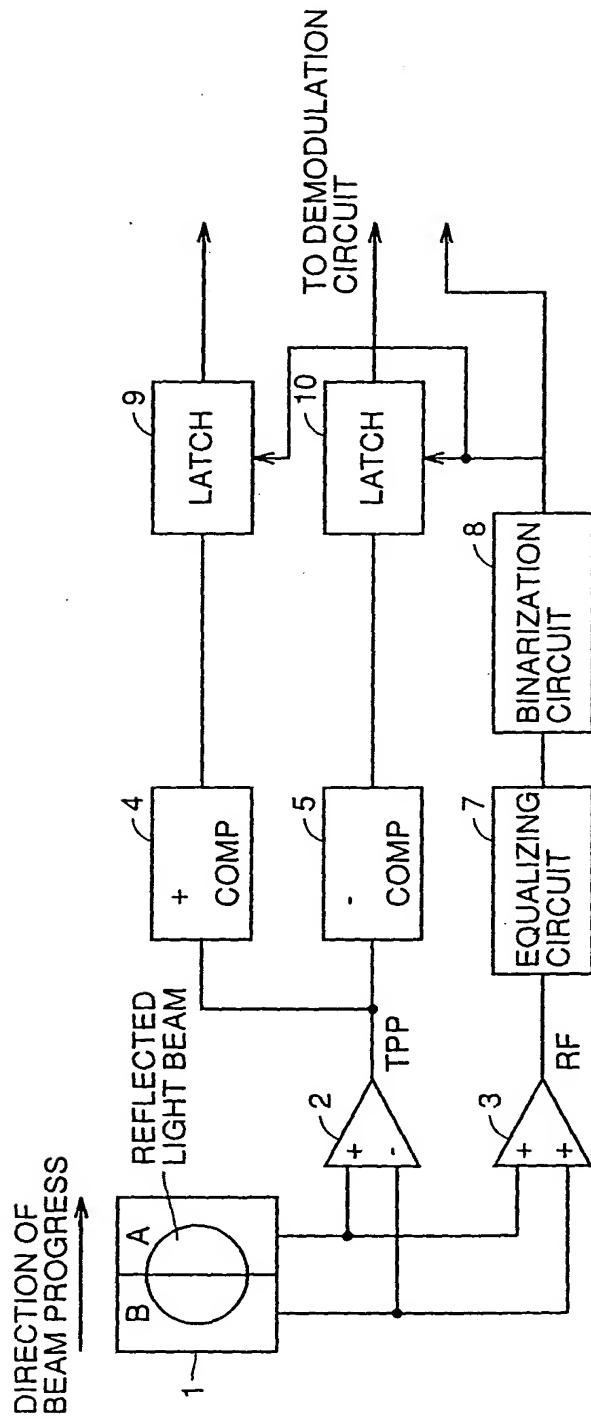
*F/G.8E*

BINARY OUTPUT  
SIGNAL

*F/G.8F*

0 +1 0 -1 +1 0

FIG.9



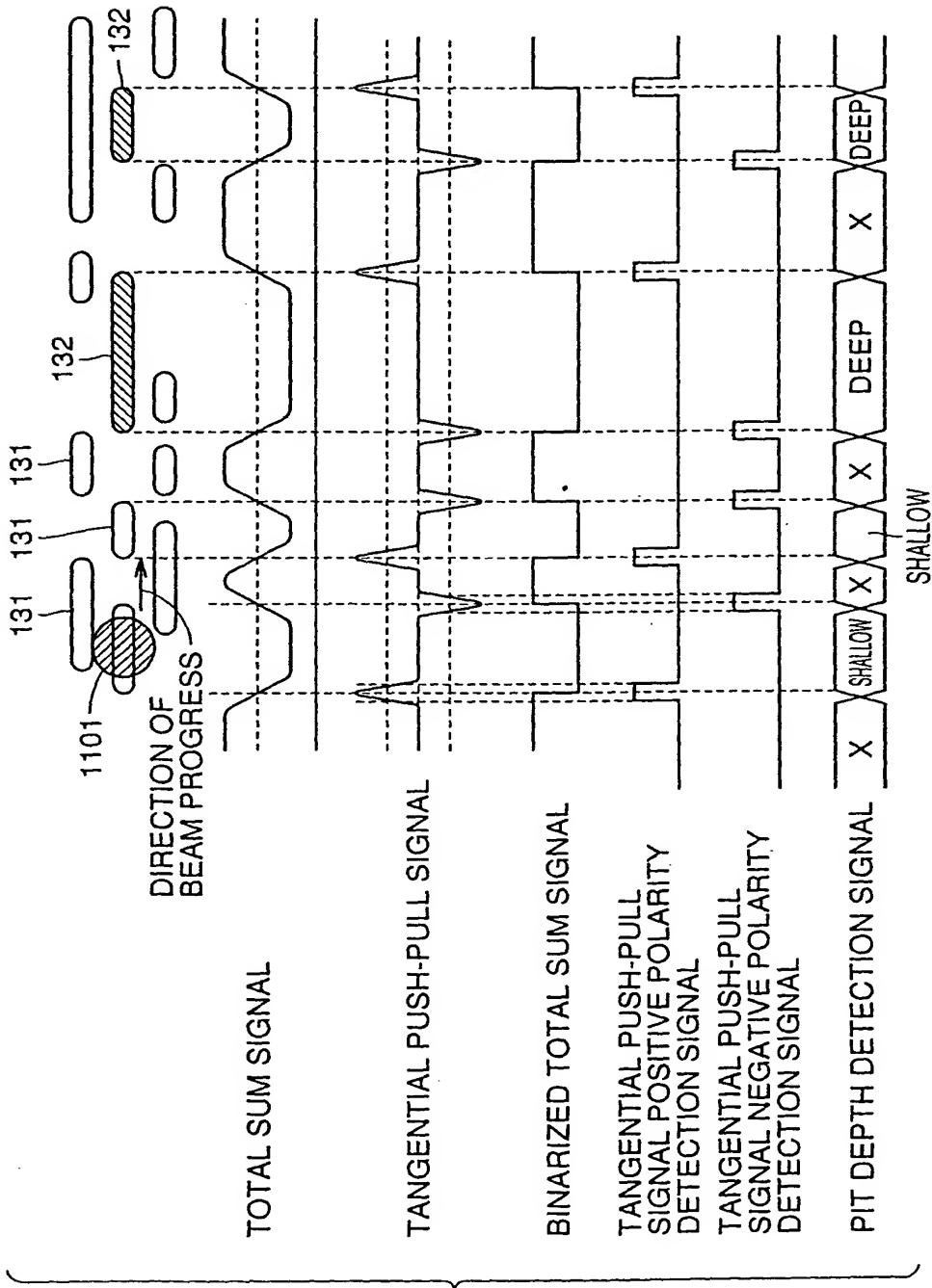


FIG. 10

FIG. 11

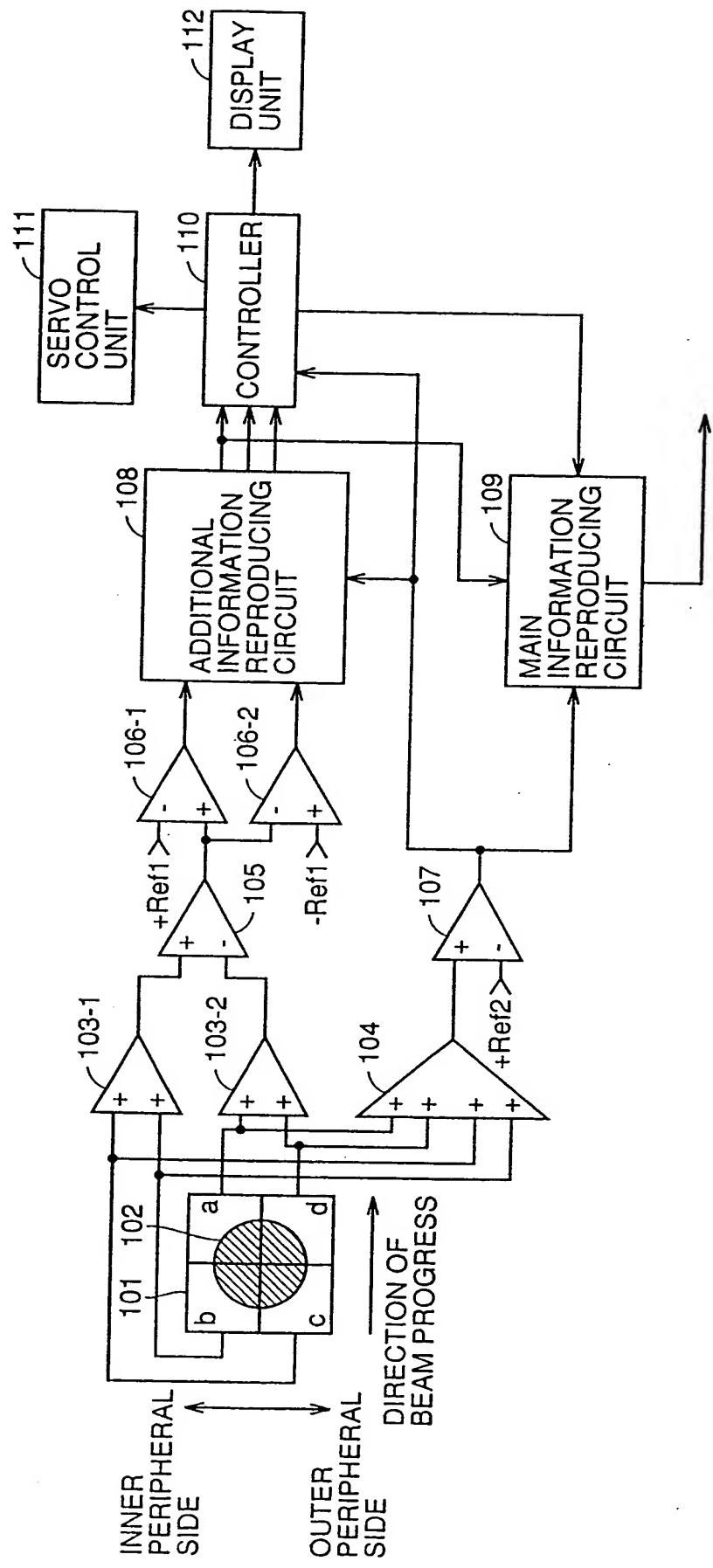
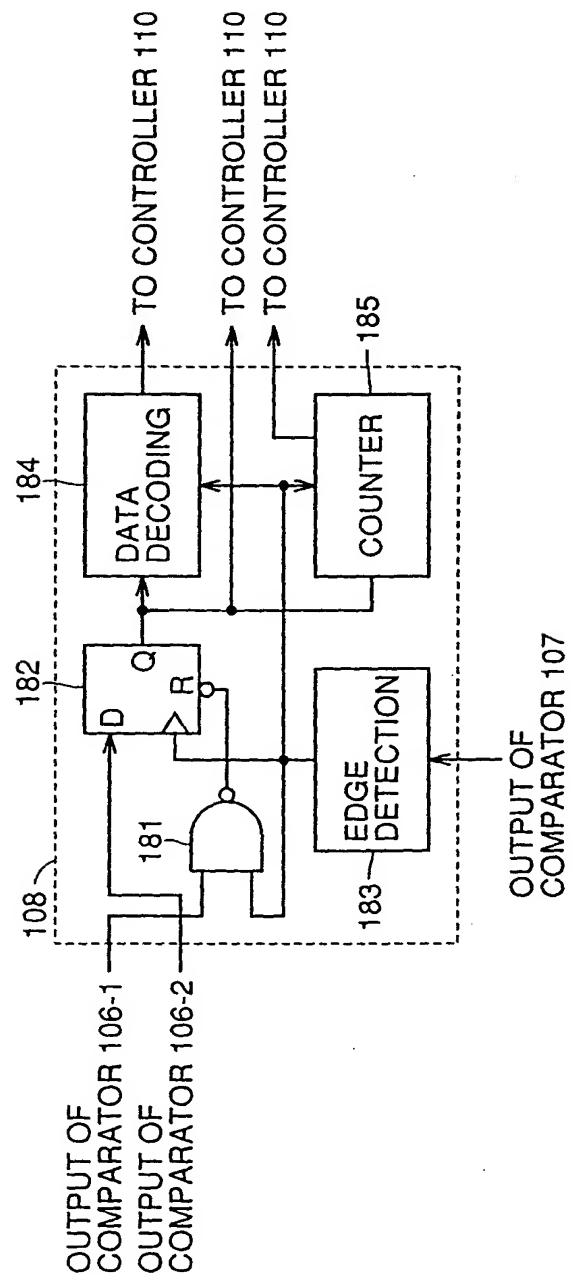


FIG. 12



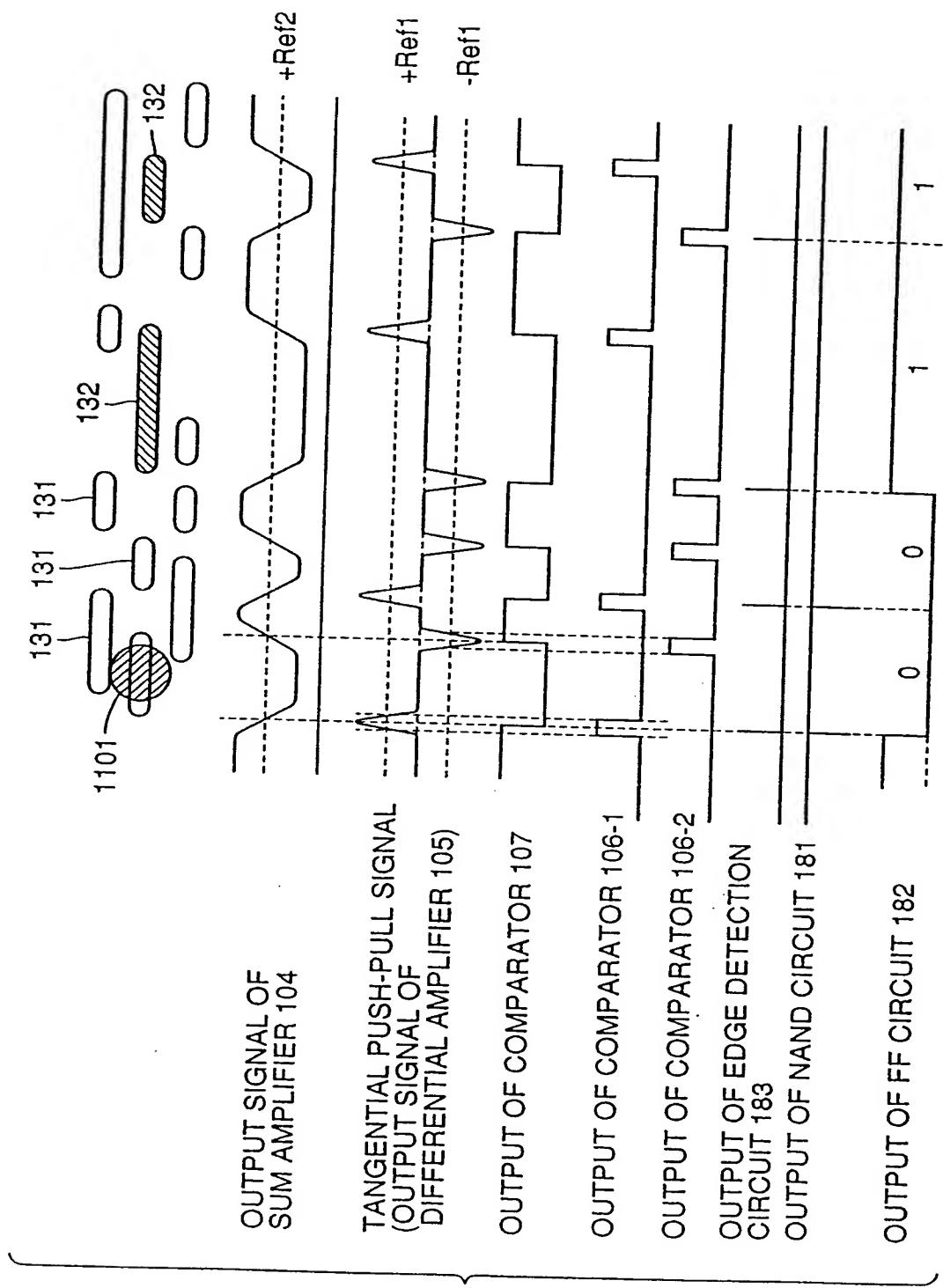
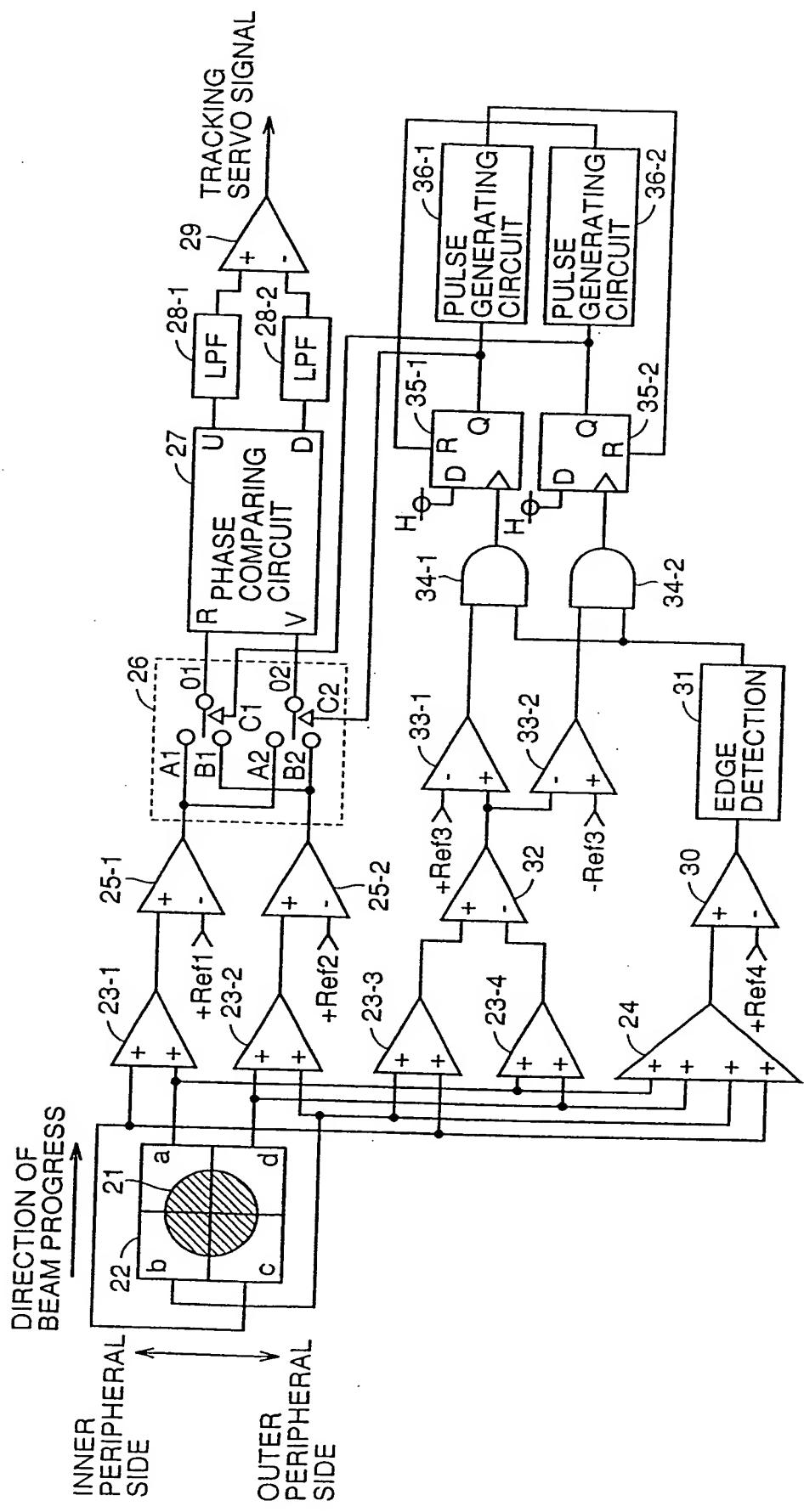


FIG. 13

FIG.14



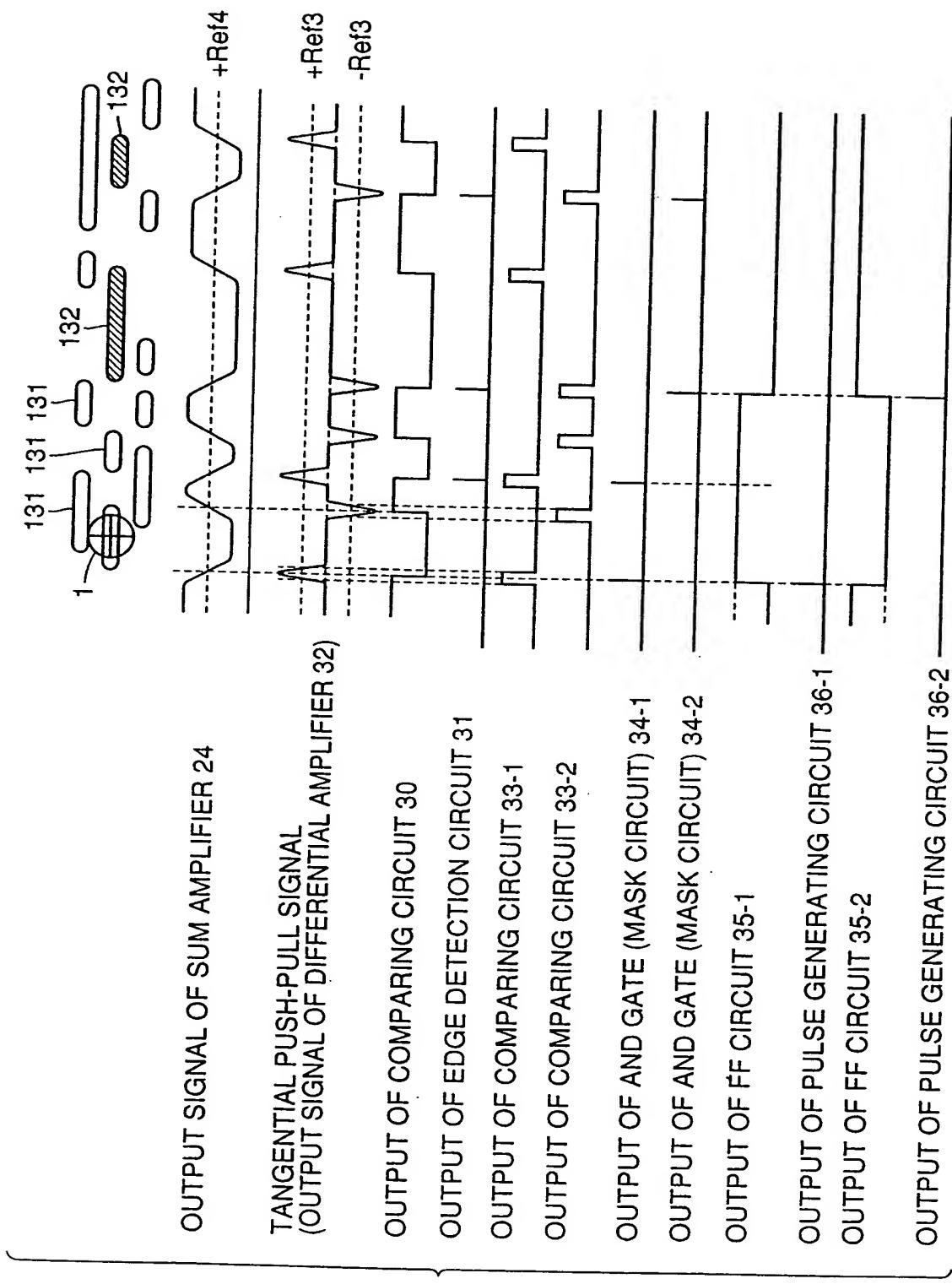


FIG. 15

*FIG. 16*

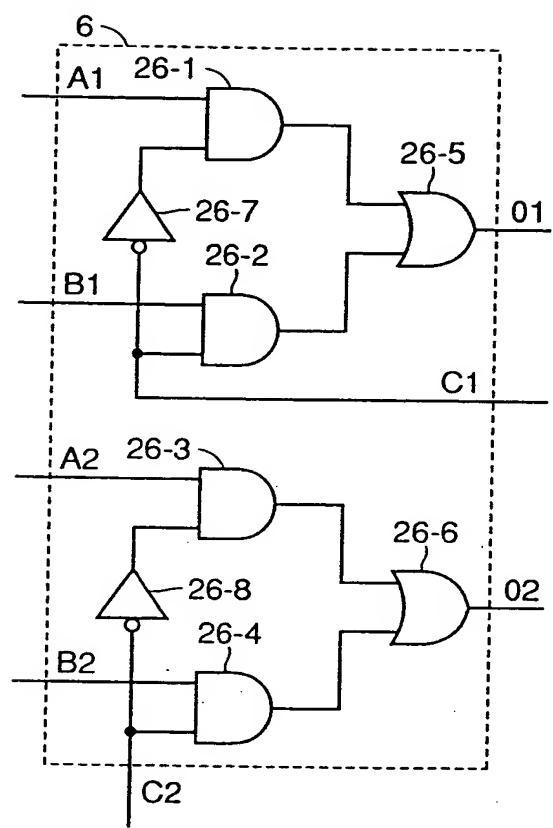


FIG. 17

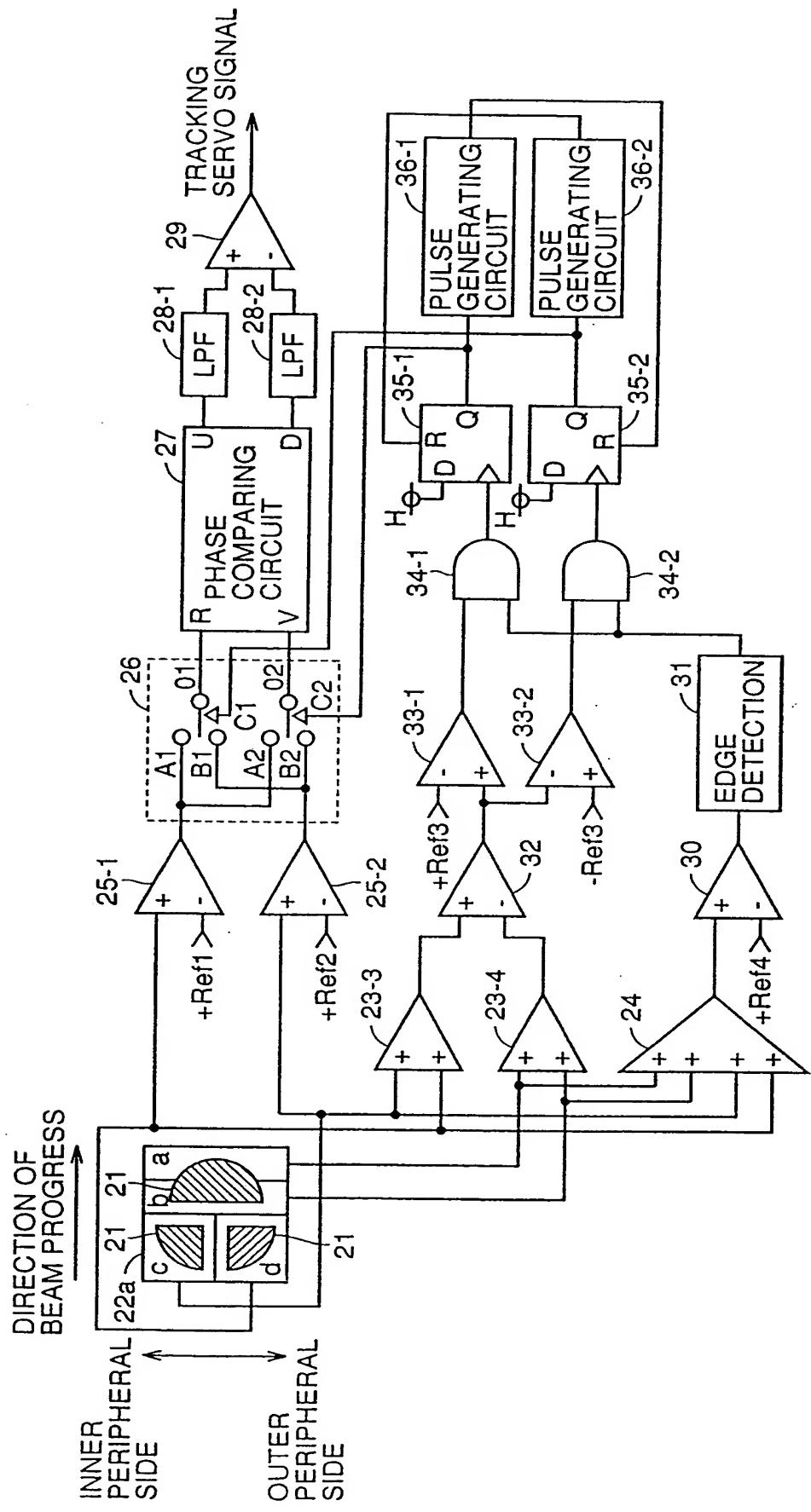


FIG. 18

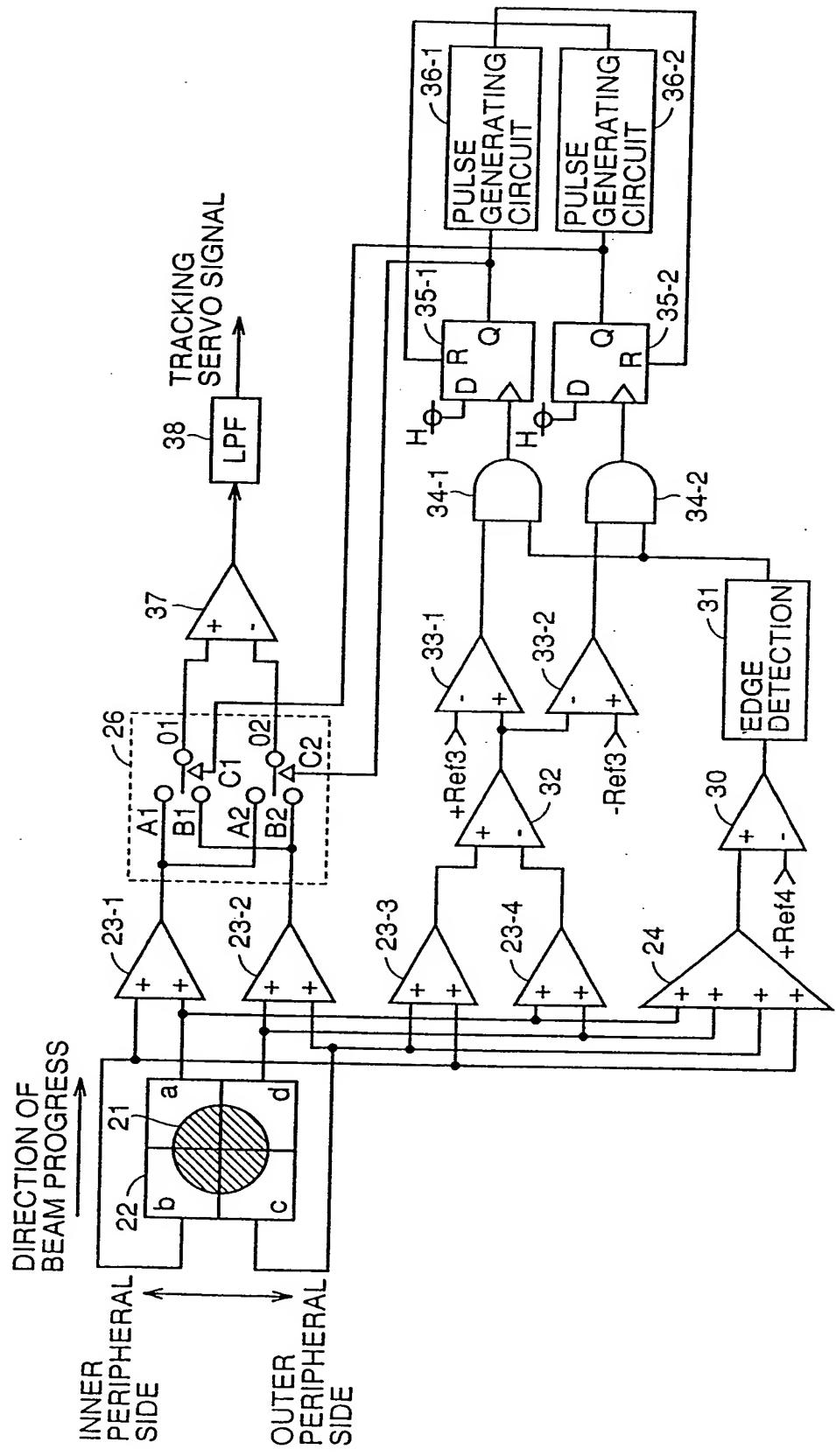


FIG. 19

